



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,841	10/13/2001	Jeffrey C. Hawkins	21495-05938	1707

758 7590 08/03/2006

FENWICK & WEST LLP  
SILICON VALLEY CENTER  
801 CALIFORNIA STREET  
MOUNTAIN VIEW, CA 94041

EXAMINER

SWERDLOW, DANIEL

ART UNIT PAPER NUMBER

2615

DATE MAILED: 08/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/976,841

**Applicant(s)**

HAWKINS ET AL.

**Examiner**

Daniel Swerdlow

**Art Unit**

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 25-111 is/are pending in the application.
- 4a) Of the above claim(s) 51-58 and 60-81 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 25-50, 59 and 82-111 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

1. Claims 51 through 58 and 60 through 81 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse as shown in the interview summary mailed on 18 January 2006. Applicant confirmed the election in a telephone conversation with the undersigned examiner on 21 June 2006 and further confirmed that previously withdrawn Claims 1 through 24 have been filed in a divisional application and are canceled from this application.
2. As such, the claims considered herein are Claims 25 through 50, 59 and 82 through 111.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 25, 26, 29, 30, 43 and 99 through 101 are rejected under 35 U.S.C. 102(b) as being anticipated by Nokia (EP 0933 908 A2).**
5. Regarding Claim 25, Nokia discloses a portable electronic apparatus (Fig. 5) that is a mobile communication device (column 2, lines 29-30), a radio telephone (column 2, lines 42-44), a PDA, a PC, and a pocket calculator (column 2, lines 46-52) (i.e., a hand-held computing device) and comprises: a main body 2 that corresponds to the case claimed, which in the open

Art Unit: 2615

position has a front surface 11a, 11b having a QWERTY keyboard (column 4, lines 28-32) that includes a telephone keypad 20 (column 5, lines 51-55).

6. Regarding Claim 26, Nokia further discloses a specific key 21 in the telephone keypad 20 that is used for indication of the typing mode (i.e., has a telephone keypad key indicator) and is associated with a symbol in keypad in that it determines whether the keys represent alphabetic or numeric symbols (column 6, lines 13-35).

7. Regarding Claim 29, Nokia further discloses all the keys in the QWERTY keyboard oriented (i.e., slanted) in the same direction (Fig. 5).

8. Regarding Claim 30, Nokia discloses a portable electronic apparatus (i.e., a handheld device) (Fig. 5) that is a mobile communication device (column 2, lines 29-30), a radio telephone (column 2, lines 42-44), a PDA, a PC, and a pocket calculator (column 2, lines 46-52) (i.e., a serves as a wireless telephone and a data entry device) and includes a keyboard (Fig. 5, reference 11a, 11b) comprising: a plurality of keys arranged ion a QWERTY configuration (column 4, lines 28-32); and a telephone keypad 20 (column 5, lines 51-55) that corresponds to the at least nine multi-value keys claimed.

9. Regarding Claim 43, Nokia discloses a portable electronic apparatus (i.e., a handheld device) (Fig. 5) that is a mobile communication device (column 2, lines 29-30), a radio telephone (column 2, lines 42-44), a PDA, a PC, and a pocket calculator (column 2, lines 46-52) (i.e., a serves as a wireless telephone and a data entry device) and includes a keyboard (Fig. 5, reference 11a, 11b) comprising: a plurality of keys arranged ion a QWERTY configuration (column 4, lines 28-32); and a telephone keypad 20 (column 5, lines 51-55) that corresponds to the at least nine multi-value keys claimed arranged in at least three rows of at least three keys each.

Art Unit: 2615

10. Regarding Claim 99, Nokia further discloses the telephone keypad 20 used to enter telephone numbers in a cellular telephone mode of operation (column 5, lines 51-55).

11. Regarding Claim 100, Nokia further discloses all the keys in the QWERTY keyboard oriented (i.e., slanted) in the same direction (Fig. 5).

12. Regarding Claim 101, Nokia further discloses all the keys in the QWERTY keyboard being oval shaped (Fig. 5).

13. **Claim 108 is rejected under 35 U.S.C. 102(b) as being anticipated by Blish (US Patent 6,022,156).**

14. Regarding Claim 108, Blish discloses an ergonomic keyboard (Fig. 2) for use in a portable computer (i.e., a handheld device) (column 1, lines 15-17) comprising: a plurality of keys arranged in a QWERTY configuration (column 1, lines 60-62); and a selectable telephone keypad area on the QWERTY keyboard with the keys arranged as claimed.

---

***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. **Claims 27, 28, 31 through 37, 41, 42 and 105 through 107 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nokia in view of Blish.**

Art Unit: 2615

17. Regarding Claim 27, as shown above apropos of Claim 25, Nokia anticipates all elements of that claim. However, Nokia is silent as to the details of the telephone keypad arrangement relative to the QWERTY keyboard arrangement. Blish discloses an ergonomic keyboard (Fig. 2) that has a selectable telephone keypad area on a QWERTY keyboard (Column 2, lines 2-7) with the "\*" symbol arranged next to the "7" key of the telephone keypad arrangement. Blish further discloses that such an arrangement reduces the number of keys required (column 1, lines 37-39) and preserves the familiar spatial relationship of the alphabetic keys, allowing faster typing (column 21-25). It would have been obvious to one skilled in the art at the time of the invention to apply the keypad arrangement taught by Blish to the electronic device taught by Nokia for the purpose of realizing the aforesaid advantages.

18. Regarding Claim 28, as shown above apropos of Claim 25, Nokia anticipates all elements of that claim. However, Nokia is silent as to the details of the telephone keypad arrangement relative to the QWERTY keyboard arrangement. Blish discloses an ergonomic keyboard (Fig. 2) that has a selectable telephone-keypad area on a QWERTY keyboard (Column 2, lines 2-7) with the "#" symbol arranged next to the "9" key of the telephone keypad arrangement. Blish further discloses that such an arrangement reduces the number of keys required (column 1, lines 37-39) and preserves the familiar spatial relationship of the alphabetic keys, allowing faster typing (column 21-25). It would have been obvious to one skilled in the art at the time of the invention to apply the keypad arrangement taught by Blish to the electronic device taught by Nokia for the purpose of realizing the aforesaid advantages.

19. Regarding Claim 31, as shown above apropos of Claim 30, Nokia anticipates all elements of that claim. However, Nokia is silent as to the details of the telephone keypad arrangement

Art Unit: 2615

relative to the QWERTY keyboard arrangement. Blish discloses an ergonomic keyboard (Fig. 2) that has a selectable telephone keypad area on a QWERTY keyboard (Column 2, lines 2-7) with the nine multi-value keys representing the numbers "1" through "9" arranged in three rows of at least three keys. Blish further discloses that such an arrangement reduces the number of keys required (column 1, lines 37-39) and preserves the familiar spatial relationship of the alphabetic keys, allowing faster typing (column 21-25). It would have been obvious to one skilled in the art at the time of the invention to apply the keypad arrangement taught by Blish to the electronic device taught by Nokia for the purpose of realizing the aforesaid advantages.

20. Regarding Claim 32, Blish further discloses the keys arranged as claimed (Fig. 2).

21. Regarding Claim 33, Blish further discloses the space/0 key arranged in a fourth row as claimed (Fig. 2).

22. Regarding Claim 34, Blish further discloses the keys arranged as claimed (Fig. 2).

23. Regarding Claim 35, Blish further discloses the keys arranged as claimed (Fig. 2).

24. Regarding Claims 36 and 37, Blish further discloses the space/0 key arranged in a fourth row as claimed (Fig. 2).

25. Regarding Claim 41, Blish does not disclose expressly the exact correspondence between the numeric key values and the alphabetic key values claimed. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to shift the relative positions of the numeric key values and the alphabetic key values while maintaining the numeric keypad arrangement disclosed in Blish. Applicant has not disclosed that the exact correspondence between the numeric key values and the alphabetic key values claimed provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill

Art Unit: 2615

in the art, furthermore, would have expected applicant's invention to perform equally well with the correspondence between the numeric key values and the alphabetic key values taught in Blish because Blish teaches the same numeric keypad arrangement in the same region of the alphabetic keyboard. Therefore, it would have been obvious to one of ordinary skill in the art to modify the correspondence between the numeric key values and the alphabetic key values taught in Blish to obtain the invention as claimed.

26. Regarding Claim 42, Blish further discloses the space/0 key arranged in a fourth row as claimed (Fig. 2).

27. Regarding Claim 105, Nokia discloses a portable electronic apparatus (i.e., a handheld device) (Fig. 5) that is a mobile communication device (column 2, lines 29-30), a radio telephone (column 2, lines 42-44), a PDA, a PC, and a pocket calculator (column 2, lines 46-52) (i.e., a serves as a wireless telephone and a data entry device) and includes a keyboard (Fig. 5, reference 11a, 11b) comprising: a plurality of keys arranged in a QWERTY configuration (column 4, lines 28-32); and a telephone keypad 20 (column 5, lines 51-55) that corresponds to the at least ten multi-value keys claimed. However, Nokia is silent as to the details of the telephone keypad arrangement relative to the QWERTY keyboard arrangement. Blish discloses an ergonomic keyboard (Fig. 2) that has a selectable telephone keypad area on QWERTY keyboard (Column 2, lines 2-7) with the ten multi-value keys representing the numbers "1" through "9" and "0" arranged in four rows of which three have at least three keys. Blish further discloses that such an arrangement reduces the number of keys required (column 1, lines 37-39) and preserves the familiar spatial relationship of the alphabetic keys, allowing faster typing (column 21-25). It would have been obvious to one skilled in the art at the time of the invention to apply the keypad



Art Unit: 2615

arrangement taught by Blish to the electronic device taught by Nokia for the purpose of realizing the aforesaid advantages.

28. Regarding Claim 106, Blish further discloses the "\*" symbol arranged next to the "7" key of the telephone keypad arrangement and the "#" symbol arranged next to the "9" key of the telephone keypad arrangement (Fig. 2).

29. Regarding Claim 107, Blish further discloses the keys all having unique legends (i.e., being visually distinguishable) (Fig. 2).

30. **Claims 38 through 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nokia in view of Blish and further in view of Dayton et al. (US Patent 4,799,254).**

31. Regarding Claim 38, as shown above apropos of Claim 31, the combination of Nokia and Blish makes obvious all elements except that Blish discloses a single multivalued key (Fig. 2, 0/SPACE) and not three additional multivalued keys in a fourth row to emulate a telephone keypad in conjunction with the other three rows. Dayton discloses a portable communication terminal with a selectable telephone keypad area on QWERTY keyboard (Fig. 4) that includes a fourth row with three multivalued keys (\* /Z, 0 /X, # /C) to emulate a telephone keypad (column 4, lines 54-63). Dayton further discloses that such an arrangement provides a familiar interface for entering telephone numbers (column 6, lines 11-13). It would have been obvious to one skilled in the art at the time of the invention to apply the fourth row arrangement taught by Dayton to the combination made obvious by Nokia and Blish for the purpose of realizing the aforesaid advantage.

Art Unit: 2615

32. Regarding Claim 39, Blish further discloses the first, second and third rows arranged as claimed (Fig. 2) and Dayton further discloses all rows arranged as claimed (Fig. 4).

33. Regarding Claim 40, Blish further discloses the first, second and third rows arranged as claimed (Fig. 2) and Dayton further discloses all rows arranged as claimed (Fig. 4).

**34. Claims 43 through 45, 48, 84 through 87, 89, 90, 92 through 97, 109 through 111 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siitonen et al. (US Patent 6,049,796) in view of Blish.**

35. Regarding Claim 43, Siitonen discloses an integrated PDA and cellular telephone (Figs. 1, 2A, 2B; column 2, lines 26-29) that corresponds to the handheld device claimed and comprises: a QWERTY keyboard 8b. However, Siitonen discloses multi-value numeric keys in a single row. Blish discloses an ergonomic keyboard (Fig. 2) that has a selectable telephone keypad area on a QWERTY keyboard (Column 2, lines 2-7) with the nine multi-value keys representing the numbers "1" through "9" arranged in three rows of at least three keys. Blish further discloses that such an arrangement reduces the number of keys required (column 1, lines 37-39) and preserves the familiar spatial relationship of the alphabetic keys, allowing faster typing (column 21-25). It would have been obvious to one skilled in the art at the time of the invention to apply the keypad arrangement taught by Blish to the electronic device taught by Siitonen for the purpose of realizing the aforesaid advantages.

36. Regarding Claims 44 and 45, Blish further discloses the space/0 key arranged in a fourth row as claimed (Fig. 2).

Art Unit: 2615

37. Regarding Claim 48, Blish does not disclose expressly the exact correspondence between the numeric key values and the alphabetic key values claimed. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to shift the relative positions of the numeric key values and the alphabetic key values while maintaining the numeric keypad arrangement disclosed in Blish. Applicant has not disclosed that the exact correspondence between the numeric key values and the alphabetic key values claimed provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with the correspondence between the numeric key values and the alphabetic key values taught in Blish because Blish teaches the same numeric keypad arrangement in the same region of the alphabetic keyboard. Therefore, it would have been obvious to one of ordinary skill in the art to modify the correspondence between the numeric key values and the alphabetic key values taught in Blish to obtain the invention as claimed.

38. Regarding Claim 84, Siitonen further discloses a PDA unit (Figs. 1, 2A, 2B, reference 10b; column 2, lines 26-29) that corresponds to the processor claimed.

39. Regarding Claims 85 and 86, Siitonen further discloses interpretation of user key activation (column 7, lines 43-50).

40. Regarding Claims 87 and 92, Blish further discloses a NUM key (Fig. 2, reference 40; column 2, lines 16-17) that corresponds to the modifier key claimed.

41. Regarding Claim 89, Blish further discloses the NUM key that corresponds to the modifier key claimed depressed at the same time as the multi-value key (column 2, lines 23-26).

Art Unit: 2615

42. Regarding Claim 90, Blish further discloses the NUM key that corresponds to the modifier key claimed depressed to activate the numerical values of the multi-value keys and depressed again to revert to alphabetic use (column 2, lines 26-29, 44-46, 5-58).

43. Regarding Claim 91, Blish further discloses a first mode in which a NUM key is depressed to activate the numerical values of the multi-value keys and a second mode in which the NUM key is depressed again to revert to alphabetic use (column 2, lines 26-29, 44-46, 5-58).

44. Regarding Claim 93, while the embodiment disclosed in Fig. 2 of Blish shows some alphabetic keys without secondary values, Blish discloses use of any key in the keyboard as a multivalue key (column 2, lines 1-2, 66-67; column 3, lines 25-26, 40-41).

45. Regarding Claim 94, Siitonen further discloses the integrated PDA and cellular telephone (Figs. 1, 2A, 2B; column 2, lines 26-29) that corresponds to the handheld device claimed used for email (column 2, lines 26-29).

46. Regarding Claim 95, Siitonen further discloses the integrated PDA and cellular telephone (Figs. 1, 2A, 2B; column 2, lines 26-29) that corresponds to the handheld device claimed uses the wireless network for email (column 2, lines 26-29).

47. Regarding Claim 96, Blish further discloses multivalued keys labeled with alphabetic and numeric values (Fig. 2).

48. Regarding Claim 97, Blish further discloses multivalued keys labeled with alphabetic and numeric values on the keys (Fig. 2).

49. Regarding Claim 102, Siitonen further discloses the integrated PDA and cellular telephone (Figs. 1, 2A, 2B; column 2, lines 26-29) that corresponds to the handheld device claimed used for email (column 2, lines 26-29).

Art Unit: 2615

50. Regarding Claim 103, Blish further discloses the space/0 key arranged in a fourth row as claimed (Fig. 2).

51. Regarding Claim 109, Siitonen discloses an integrated PDA and cellular telephone (Figs. 1, 2A, 2B; column 2, lines 26-29) that corresponds to the handheld device claimed and comprises: a QWERTY keyboard 8b; and a PDA unit 10b that corresponds to the processor claimed. However, Siitonen discloses multi-value numeric keys in a single row. Blish discloses an ergonomic keyboard (Fig. 2) that has a selectable telephone keypad area on a QWERTY keyboard (Column 2, lines 2-7) with the nine multi-value keys representing the numbers "1" through "9" arranged in three rows of at least three keys. Blish further discloses that such an arrangement reduces the number of keys required (column 1, lines 37-39) and preserves the familiar spatial relationship of the alphabetic keys, allowing faster typing (column 21-25). It would have been obvious to one skilled in the art at the time of the invention to apply the keypad arrangement taught by Blish to the electronic device taught by Siitonen for the purpose of realizing the aforesaid advantages.

52. Regarding Claim 110, Siitonen further discloses a telephone unit 10a that corresponds to the transceiver claimed, is coupled to the PDA unit 10b that corresponds to the processor claimed and is used for email (column 2, lines 26-29).

53. Regarding Claim 111, Siitonen further discloses a telephone unit 10a that corresponds to the transceiver claimed, is coupled to the PDA unit 10b that corresponds to the processor claimed and uses the wireless network for email (column 2, lines 26-29).

Art Unit: 2615

**54. Claims 46, 47, 49, 50, 83 and 104 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siitonen in view of Blish and further in view of Dayton.**

55. Regarding Claim 46, as shown above apropos of Claim 43, the combination of Siitonen and Blish makes obvious all elements except that Blish discloses a single multivalued key (Fig. 2, 0/SPACE) and not three additional multivalued keys in a fourth row. Dayton discloses a portable communication terminal with a selectable telephone keypad area on QWERTY keyboard (Fig. 4) that includes a fourth row with three multivalued keys (\* /Z, 0 /X, # /C) (column 4, lines 54-63). Dayton further discloses that such an arrangement provides a familiar interface for entering telephone numbers (column 6, lines 11-13). It would have been obvious to one skilled in the art at the time of the invention to apply the fourth row arrangement taught by Dayton to the combination made obvious by Siitonen and Blish for the purpose of realizing the aforesaid advantage.

56. Regarding Claim 47, Dayton further discloses the fourth row numeric values being \*, 0 and # (Fig. 4).

---

57. Regarding Claim 49, as shown above apropos of Claim 43, the combination of Siitonen and Blish makes obvious all elements except that Blish discloses a multivalued key with a numeric secondary value (Fig. 2, 0/SPACE) in a fourth row. Dayton discloses a portable communication terminal with a selectable telephone keypad area on QWERTY keyboard (Fig. 4) that includes a fourth row with multivalued keys (\* /Z, # /C) with non-alphabetic, non-numeric secondary values (i.e., \*, #) (column 4, lines 54-63). Dayton further discloses that such an arrangement provides a familiar interface for entering telephone numbers (column 6, lines 11-13). It would have been obvious to one skilled in the art at the time of the invention to apply the

Art Unit: 2615

fourth row arrangement taught by Dayton to the combination made obvious by Siitonen and Blish for the purpose of realizing the aforesaid advantage.

58. Regarding Claim 50, Blish further discloses the keys all having unique legends (i.e., being visually distinguishable) (Fig. 2).

59. Regarding Claim 83, Dayton further discloses the non-alphabetic, non-numeric secondary values being \* and # (i.e., punctuation marks) (Fig. 4).

60. Regarding Claim 104, as shown above apropos of Claim 43, the combination of Siitonen and Blish makes obvious all elements except that Blish discloses a single multivalued key (Fig. 2, 0/SPACE) and not three additional multivalued keys in a fourth row. Dayton discloses a portable communication terminal with a selectable telephone keypad area on QWERTY keyboard (Fig. 4) that includes a fourth row with three multivalued keys (\* /Z, 0 /X, # /C) (column 4, lines 54-63). Dayton further discloses that such an arrangement provides a familiar interface for entering telephone numbers (column 6, lines 11-13). It would have been obvious to one skilled in the art at the time of the invention to apply the fourth row arrangement taught by Dayton to the combination made obvious by Siitonen and Blish for the purpose of realizing the aforesaid advantage.

61. **Claims 59 and 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siitonen in view of Blish and further in view of Dayton and further in view of Krishnan (US Patent 6,377,685).**

62. Regarding Claims 59 and 82, as shown above apropos of Claim 49, the combination of Siitonen, Blish and Dayton makes obvious all elements except use of different colors for numeric

Art Unit: 2615

secondary value keys and non-numeric non-alphabetic secondary value keys. Krishman discloses a keypad arrangement using different colors to distinguish different classes of secondary key values (column 22, lines 31-36). One skilled in the art would have known that such an arrangement permits a user to more easily locate a desired function on a keypad. It would have been obvious to one skilled in the art at the time of the invention to apply the use of different colors to distinguish different classes of secondary key values taught by Krishman to the combination made obvious by Siitonen, Blish and Dayton for the purpose of realizing the aforesaid advantage.

**63. Claim 88 is rejected under 35 U.S.C. 103(a) as being unpatentable over Siitonen in view of Blish and further in view of Bartlett et al. (US Patent 3,573,376).**

64. Regarding Claim 88, as shown above apropos of Claim 87, the combination of Siitonen and Blish makes obvious all elements except interpreting a subsequent key press of a multivalued key after a key press of a modifier key as the secondary value. Bartlett discloses a signaling system for a combined telephone and calculator keypad that responds to a press of a shift key that corresponds to the modifier key claimed to shift from a standard telephone key set to a calculator and resets immediately after the next succeeding signal (column 1, lines 39-47). Bartlett further discloses that such an arrangement provides nearly double the functionality from the key set (column 2, lines 10-12). It would have been obvious to one skilled in the art at the time of the invention to apply the immediately resetting shift taught by Bartlett to the combination made obvious by Siitonen and Blish for the purpose of realizing the aforesaid advantage.



65. **Claim 98 is rejected under 35 U.S.C. 103(a) as being unpatentable over Siitonen in view of Blish and further in view of Welch (US Patent 5,938,772).**

66. Regarding Claim 98, as shown above apropos of Claim 87, the combination of Siitonen and Blish makes obvious all elements except printing legends adjacent to keys. Welch discloses placing labels adjacent to a button instead of on the button (column 5, lines 51-52). Welch further discloses that such an arrangement allows the user to see the label while pressing the button (column 5, lines 53-56). It would have been obvious to one skilled in the art at the time of the invention to apply key-adjacent labels as taught by Welch to the combination made obvious by Siitonen and Blish for the purpose of realizing the aforesaid advantage.

### ***Conclusion***

Examination of this application has been transferred to the undersigned. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Swerdlow whose telephone number is 571-272-7531. The examiner can normally be reached on Monday through Friday between 7:30 AM and 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh H. Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2615

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Daniel Swerdlow  
Primary Examiner  
Art Unit 2615

ds  
19 July 2006